

**APPEAL BRIEF**

## **TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
1. STATEMENT OF REAL PARTY IN INTEREST .....	3
2. STATEMENT OF RELATED APPEALS/INTERFERENCES.....	4
3. STATEMENT OF STATUS OF CLAIMS.....	4
4. STATEMENT OF STATUS OF AMENDMENTS.....	5
5. SUMMARY OF CLAIMED SUBJECT MATTER.....	6
6. STATEMENT OF GROUNDS OF REJECTION TO BE REVIEWED.....	10
7. STATEMENT OF ARGUMENT.....	10
8. CONCLUSION.....	15
9. CLAIMS APPENDIX.....	16
10. EVIDENCE APPENDIX.....	20
11. RELATED PROCEEDINGS APPENDIX.....	21

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appellant: Ryohei Sato

Examiner: Willie J. Daniel, Jr.

Serial No.: 09/855,242

Art Unit: 2617

Filed: May 15, 2001

Docket: 14632

For: CELLULAR PHONE  
APPARATUS AND COMMUNICATION  
METHOD THEREOF

Dated: November 20, 2007

Conf. No.: 8991

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA. 22313-1450

**APPEAL BRIEF**

**I. Statement of Real Party in Interest**

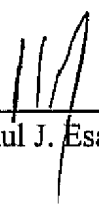
The real party in interest of the present application is NEC Corporation, the assignee of the entire right, title and interest in the above-identified patent application.

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**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

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Dated: November 20, 2007

  
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Paul J. Esatto, Jr.

## II. Statement of Related Appeals and Interferences

No other appeals and interferences are known which directly affect, or will be directly affected by, or have a bearing on, the disposition of the pending appeal.

## III. Statement of Status of Claims

### A. Status of Claims

Claim 1 has been canceled.

Claim 2 has been canceled.

Claim 3 has been canceled.

Claim 4 has been canceled.

Claim 5 has been canceled.

Claim 6 has been canceled.

Claim 7 has been canceled.

Claim 8 has been canceled.

Claim 9 has been canceled.

Claim 10 stands rejected based on 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai.

Claim 11 stands rejected based on 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai.

Claim 12 stands rejected based on 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai.

Claim 13 stands rejected based on 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai.

Claim 14 stands rejected based on 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai.

Claim 15 stands rejected based on 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai.

Claim 16 stands rejected based on 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai and further in view of U.S. Patent No. 5,880,732 issued to Tryding.

Claim 17 stands rejected based on 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai and further in view of U.S. Patent No. 5,880,732 issued to Tryding.

Claim 18 stands rejected based on 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai and further in view of U.S. Patent No. 5,880,732 issued to Tryding.

Claim 19 stands rejected based on 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai and further in view of U.S. Patent No. 5,880,732 issued to Tryding.

Claim 20 stands rejected based on 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai and further in view of U.S. Patent No. 5,880,732 issued to Tryding.

#### B. Identification of Claims Under Appeal

Appellant appeals the rejections of Claims 10 – 20.

#### IV. Statement of Status of Amendments

No amendments were made subsequent to the final rejection.

## V. Summary of Claimed Subject Matter

The invention with respect to Claim 10 comprises a cellular telephone apparatus 2 which has a cellular telephone set 4 capable of originating a plurality of calls to a base station 8 and communicating with an accessory 6 through sub-communication means 14 and 24, and said accessory 6 capable of communicating with said cellular telephone set 4 through said sub-communication means 14, 24, 32 and 34, and can execute a communication function other than a voice communication function by said cellular telephone set 4 through said sub-communication means 14, 24, 32 and 34, said cellular telephone set 4 (See: e.g., FIG. 1 and 2; page 7, line 22 – page 8, line 25) comprising cellular telephone transceiver means 12 for originating a plurality of calls to a base station 8; sub-communication means 14 and 32 for performing communication with said accessory 6 by means of a call through a channel 10; channel monitoring means 16 for monitoring channel quality of said sub-communication means 14 and 32; and control means 18 for, causing said cellular telephone transceiver means 12 to start originating a new call for voice communication with a remote cellular telephone set when the channel quality of said sub-communication means has deteriorated to not more than a predetermined level, said new call being other than a call used by the cellular telephone set to perform sub-communication with the accessory (See: e.g., page 8, line 12 – page 9, line 17), and said accessory 6 comprises: sub-communication means 24 for performing communication with said cellular telephone set 4; expression means 22 for expressing a content transferred by said sub-communication means 24 and 34; channel monitoring means 26 for monitoring channel quality of said sub-communication means 24 and 34; and control means 28 for, when the channel quality of said sub-communication means has deteriorated to not more than a predetermined level, notifying said cellular telephone set 4 of the corresponding information. (See: e.g., page 9, line 18 – page 10, line 20).

The invention with respect to Claim 11 comprises the elements identified with respect to Claim 10 above, and further, wherein said accessory 6 comprises a videophone unit. (See: e.g., page 8, lines 4 – 11; page 11, lines 1 – 13; and page 14, lines 14 - 15).

The invention with respect to Claim 12 comprises the elements identified with respect to Claim 10 above, and further, wherein said accessory 6 comprises a musical unit. (See: e.g., page 14, lines 15 - 16).

The invention with respect to Claim 13 comprises the elements identified with respect to Claim 10 above, and further, wherein said sub-communication means 14, 24, 32 and 34 is infrared communication.

The invention with respect to Claim 14 comprises the elements identified with respect to Claims 11 above, and further, wherein said sub-communication means 14, 24, 32 and 34 is infrared communication. (See: e.g., page 8, lines 17 - 18).

The invention with respect to Claim 15 comprises the elements identified with respect to Claims 12 above, and further, wherein said sub-communication means 14, 24, 32 and 34 is infrared communication. (See: e.g., page 8, lines 17 - 18).

The invention with respect to Claim 16 comprises the elements identified with respect to Claim 10 above, and further, wherein said sub-communication means 14, 24, 32 and 34 is radio communication. (See: e.g., page 10, lines 21 - 25).

The invention with respect to Claim 17 comprises the elements identified with respect to Claim 11 above, and further, wherein said sub-communication means 14, 24, 32 and 34 is radio communication. (See: e.g., page 10, lines 21 - 25).

The invention with respect to Claim 18 comprises the elements identified with respect to Claim 12 above, and further, wherein said sub-communication means 14, 24, 32 and 34 is radio communication. (See: e.g., page 10, lines 21 - 25).

The invention with respect to Claim 19 comprises a communication method for a cellular telephone apparatus 2 including a cellular telephone set 4 capable of originating a call in addition to a call for voice communication, and an accessory 6 capable of communicating with the cellular telephone set 4 through a call by using a radio channel for sub-communication 10 (See: e.g., FIG. 1 and 2; page 7, line 22 – page 8, line 25), wherein even if channel quality of a radio channel for the sub-communication 10 has deteriorated to not more than a predetermined level, when the cellular telephone set 4 can perform voice communication with a remote cellular telephone set 40, the cellular telephone set 4 is allowed to perform voice communication with the remote cellular telephone set 40 by originating a new call, other than a call used by the cellular telephone set 4 to perform said sub-communication with the accessory 6. (See: e.g., FIG. 3; and page 12, line 15 – page 13, line 21).

The invention with respect to Claim 20 comprises a communication method of communicating between cellular telephone apparatuses 2 and 20 with each other, each of said apparatuses including a cellular telephone set 4 and 40 capable of originating a call in addition to a call for normal voice communication, and an accessory 6 and 60 capable of communicating with the cellular telephone set 4 and 40 by making use of a radio channel for sub-communication through a call 10 (See: e.g., FIG. 1 and 2; page 7, line 22 – page 8, line 25; and page 11, lines 1 - 13), comprising the steps of: inputting a telephone number of a remote cellular telephone apparatus by operating a ten-key mounted in an originating cellular telephone apparatus so as to start the sub-communication (See: e.g., FIG. 4, Step F-1; and page 11, line 24 – page 12, line 2);



transmitting corresponding information through infrared light from the accessory to a cellular telephone set mounted in said originating cellular phone apparatus so as to originate a call (See: e.g., FIG. 3, Step S-1; and page 12, lines 2 – 5); starting communication from the cellular telephone set mounted in said originating cellular telephone apparatus to the remote cellular telephone apparatus through base stations and activating display units to transmit and receive a sensed image signal and display a corresponding images so as to perform videophone communication (See: e.g., FIG. 3, Steps S-2 and S-3; and page 12, lines 5 – 14); monitoring a channel quality of the sub-communication to determine whether the channel quality has deteriorated to a predetermined level or less (See: e.g., FIG. 3, Steps S-4, S-5 and S-6; and page 12, lines 15 – 24); checking whether communication using a voice call can be performed between cellular telephone sets respectively mounted in said cellular telephone apparatuses (See: e.g., FIG. 3, Step S-7; and page 12, line 24 – page 13, line 1); originating a new call from the cellular telephone set mounted in the originating cellular telephone apparatus to the cellular telephone set mounted in the remote cellular telephone apparatus if the channel quality is determined to be deteriorated to a predetermined level or less, the new call being other than a call used for the sub-communication (See: e.g., FIG. 3, Step S-8; and page 13, line 2 – 4); starting voice communication when the voice call is originated (See: e.g., FIG. 3, Step S-9; and page 13, line 16 – 18); and terminating the sub-communication. (See: e.g., FIG. 3, Steps S-10 and S-11; and page 13, line 18 – 21).

VI. Statement of Grounds of Rejection to be Reviewed on Appeal

1. Rejection of Claims 10 – 15 under 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai.

2. Rejection of Claims 16 – 20 under 35 U.S.C. §103(a) over U.S. Patent No. 6,349,324 issued to Tokoro in view of U.S. Patent No. 6,757,301 issued to Tsai and further in view of U.S. Patent No. 5,880,732 issued to Tryding.

VII. Statement of Argument

A. Claims 10 – 15

The obviousness rejection with respect to Claims 10 – 15 relies on the combined disclosures of Tokoro and Tsai for allegedly disclosing the cellular telephone apparatus recited in Claims 10 – 15 on appeal. Appellant respectfully submits that Claims 10 – 15 on appeal are not obvious from the above combination of references since neither of the references, individually or in combination, teaches or suggests Appellant's claimed cellular telephone apparatus recited in Claims 10 – 15.

The present invention starts originating a call, other than a call used by the cellular telephone set to perform sub-communication with the accessory, when the channel quality of the sub-communication means has deteriorated to not more than a predetermined level. Therefore, the call other than a call used by the cellular telephone set to perform sub-communication with the accessory is a new and separate call originated for the express purpose of providing voice communications.

As the Examiner has conceded in a previous Office Action, Tokoro fails to specifically disclose both a cellular telephone apparatus and an accessory comprising a channel monitoring means for monitoring channel quality of the sub-communications means and a control means for

notifying the cellular telephone set of a deterioration in channel quality of the sub-communications means to a level no more than a predetermined level, causing the cellular apparatus to start originating a call.

However, the Examiner asserts that Tokoro suggests the above-identified limitation because, as the Examiner contends, deterioration of a channel or communications path can occur as a result of the user moving away from the accessory, thus rendering the utilization or employment of the image display means unnecessary at that particular instant. However, while one can say that, once the sub-communications means deteriorates below an acceptable predetermined level, the image display means is no longer useful or necessary, that does not lead to the conclusion that the cellular apparatus disclosed in Tokoro necessarily will or even should start originating a call for voice communication with a remote cellular telephone set. Based on the teachings in Tokoro, the sub-communication with the accessory would be terminated with no further action being performed by the cellular apparatus. The Examiner has not provided an explicit analysis of the reasons why the claimed subject matter would be suggested by an alleged deterioration of the communication path between the cellular apparatus and the accessory. (See: KSR v. Teleflex, 82 USPQ2d 1385, 1396).

The original communication connection between the base station and cellular telephone set used to supply the data for the television-telephone conversation, as disclosed in Tokoro, is maintained even if the sub-communication with the television is degraded, thus the audio is still receivable over the original communication connection. This does not suggest a need for the Tokoro apparatus to start originating a new call for voice communication with a remote cellular telephone set other than the call used by the cellular telephone set to perform the sub-communication means, as recited in Appellant's Claim 10, and similarly in Claims 19 and 20.

The Tokoro apparatus does not start originating a new call for voice communication with a remote cellular telephone set other than the call used by the cellular telephone set to perform the sub-communication means when the channel quality of the sub-communication means has deteriorated to not more than a predetermined level. Rather, Tokoro discloses that the user can temporarily suspend the sub-communication and continue the communication as voice only. The user can resume the television-telephone conversation once a television is again in range by operating the television-telephone button. (See: Tokoro, col. 14, lines 44 – 51).

It is evident that the Tokoro apparatus makes only one call to a remote telephone, and only the transmitter used to perform the television-telephone conversation is disengaged when the user turns off the television-telephone button. The call to the remote telephone however remains established. Therefore, Tokoro does not originate a new call for voice communication when the channel quality of the sub-communication means has deteriorated. Rather, Tokoro simply disengages the transmission to the television, while maintaining the original call so that the conversation can be continued as a voice-only conversation. Consequently, Tokoro teaches away from the functioning of Appellant's invention recited in independent Claim 10. (See: KSR v. Teleflex, 82 USPQ2d at 1399).

Appellant's claimed invention provides that a cellular telephone transceiver means starts originating a new call for voice communication with a remote cellular telephone set when the channel quality of the sub-communication means has deteriorated to not more than a predetermined level, the new call being other than a call used by the cellular telephone set to perform sub-communication with the accessory.

Moreover, the combination of Tokoro with Tsai does not properly disclose or suggest Appellant's claimed cellular telephone apparatus. The hypothetical combination of Tokoro and

Tsai is being made by the Examiner in an effort to show switching between a television-telephone conversation to a telephone-only conversation. However, it would not have been obvious that the reference could be combined in the manner proposed by the Examiner. Specifically, a disclosure or suggestion is not present in either Tokoro or Tsai for control means causing a cellular telephone transceiver means to start originating a new call for voice communication with a remote cellular telephone set. Rather, Tsai discloses switching between a data/fax mode and a voice mode, not a control means causing a cellular telephone transceiver means to start originating a new call for voice communication with a remote cellular telephone set.

In contrast, Appellant does not claim switching, but rather claims initiating a new call, other than the first call used for the sub-communication, for voice communication when the first call is deteriorated to not more than a predetermined level. The Tsai apparatus does not originate a new call for voice communication with a remote cellular telephone set when the channel quality of the sub-communication means has deteriorated to not more than a predetermined level. Tsai specifically discloses detecting the type of communication – i.e., voice, fax, or silence – being received over a telephone line, and based on the determination, the apparatus switches between voice and fax modes, or if silence is detected the apparatus terminates the call. To reiterate, Tsai does not originate any new calls when the channel quality has deteriorated.

It should be noted that in FIG. 1 of Tsai, the device 100 does not suggest having telephone functionality, (e.g., no keypad for dialing, no speaker or microphone, etc.). In fact, Tsai specifically states that device 62, connected to device 100, usually has a telephone associated with it, thus the telephone functionality is performed by a separate device other than device 100. Therefore, the switching discussed by the Examiner is not performed by a telephone but by a

separate device to which a telephone may be connected. Furthermore, Tsai does not base the switching on channel quality but rather on the energy's time pattern indicative of data, voice or silence, where data is characterized by a relatively uniform pattern, voice is characterized by an oscillating pattern, and silence is characterized as a uniformly low energy pattern.

Thus, the hypothetical combination of Tokoro and Tsai would not result in Appellant's invention as recited in the claims. Therefore, for at least the reasons presented above, Claims 10 – 15 are believed to be allowable over the cited prior art references.

**B. Claims 16 – 20**

The obviousness rejection with respect to Claims 16 – 20 relies on the combined disclosures of Tokoro, Tsai and Tryding for allegedly disclosing cellular telephone apparatus and communication method recited in Claims 16 – 20 on appeal. Appellant respectfully submits that Claims 16 – 20 on appeal are not obvious from the above combination of references since neither of the references, individually or in combination, teaches or suggests Appellant's claimed cellular telephone apparatus communication method recited in Claims 16 – 20.

Claims 16 – 18 depend from independent Claim 10, thus these claims include all the limitations recited in that independent claim. Additionally, independent Claims 19 and 20 recite similar limitations as Claim 10. Therefore, the arguments presented above apply equally well to the present rejection.

Tryding discloses an apparatus for enabling use of a display monitor with a mobile telephone. Tryding does not disclose a control means causing a cellular telephone transceiver means to start originating a new call for voice communication with a remote cellular telephone set when a channel quality of sub-communication means has deteriorated to not more than a predetermined level.


Hence, Tryding does not overcome the deficiencies of Tokoro and Tsai. Therefore, for at least the reasons presented above, Claims 16 – 20 are believed to be allowable over the cited prior art references.

#### VIII. CONCLUSION

It is clear that all of the limitations of claims 10 – 20 are not taught or suggested by the references of Tokoro, Tsai, and Tryding, individually or in any proper combination. Accordingly, Appellant respectfully submits that the Examiner has not met the burden of establishing a prima facie case of obviousness based on the prior art, as required by 35 U.S.C. §103(a)<sup>1</sup>; no objective teaching in Tokoro, Tsai, and Tryding, individually or in any proper combination, would lead an individual of ordinary skill in the art to produce the present invention.

The above arguments establish that Claims 10 – 20 on appeal are patentable over the combination of Tokoro, Tsai, and Tryding. In view of the remarks set forth in this Appeal Brief, Appellant respectfully requests that the rejection under 35 U.S.C. §103(a) citing the aforementioned references made in the Final Rejection dated March 20, 2007, and in the Advisory Action of July 16, 2007, be reversed by the Board of Patent Appeals and Interferences.

Respectfully submitted,



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<sup>1</sup> In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed.Cir. 1984).

## CLAIMS APPENDIX

1 – 9 (cancelled)

10. (Previously Presented) A cellular telephone apparatus which has a cellular telephone set capable of originating a plurality of calls to a base station and communicating with an accessory through sub-communication means, and said accessory capable of communicating with said cellular telephone set through said sub-communication means, and can execute a communication function other than a voice communication function by said cellular telephone set through said sub-communication means, said cellular telephone set comprising:

cellular telephone transceiver means for originating a plurality of calls to a base station;

sub-communication means for performing communication with said accessory by means of a call through a channel;

channel monitoring means for monitoring channel quality of said sub-communication means; and

control means for, causing said cellular telephone transceiver means to start originating a new call for voice communication with a remote cellular telephone set when the channel quality of said sub-communication means has deteriorated to not more than a predetermined level, said new call being other than a call used by the cellular telephone set to perform sub-communication with the accessory, and said accessory comprises:

sub-communication means for performing communication with said cellular telephone set;

expression means for expressing a content transferred by said sub-communication means;



channel monitoring means for monitoring channel quality of said sub-communication means; and

control means for, when the channel quality of said sub-communication means has deteriorated to not more than a predetermined level, notifying said cellular telephone set of the corresponding information.

11. (Original). An apparatus according to claim 10, wherein said accessory comprises a videophone unit.

12. (Original). An apparatus according to claim 10, wherein said accessory comprises a musical unit.

13. (Original). An apparatus according to claim 10, wherein said sub-communication means is infrared communication.

14. (Original). An apparatus according to claim 11, wherein said sub-communication means is infrared communication.

15. (Original). An apparatus according to claim 12, wherein said sub-communication means is infrared communication.

16. (Original). An apparatus according to claim 10, wherein said sub-communication means is radio communication.

17. (Original). An apparatus according to claim 11, wherein said sub-communication means is radio communication.

18. (Original). An apparatus according to claim 12, wherein said sub-communication means is radio communication.

19. (Previously Presented) A communication method for a cellular telephone apparatus including a cellular telephone set capable of originating a call in addition to a call for voice communication, and an accessory capable of communicating with the cellular telephone set through a call by using a radio channel for sub-communication, wherein even if channel quality of a radio channel for the sub-communication has deteriorated to not more than a predetermined level, when the cellular telephone set can perform voice communication with a remote cellular telephone set, the cellular telephone set is allowed to perform voice communication with the remote cellular telephone set by originating a new call, other than a call used by the cellular telephone set to perform said sub-communication with the accessory.

20. (Previously Presented) A communication method of communicating between cellular telephone apparatuses with each other, each of said apparatuses including a cellular telephone set capable of originating a call in addition to a call for normal voice communication, and an accessory capable of communicating with the cellular telephone set by making use of a radio channel for sub-communication through a call, comprising the steps of:

inputting a telephone number of a remote cellular telephone apparatus by operating a ten-key mounted in an originating cellular telephone apparatus so as to start the sub-communication;

transmitting corresponding information through infrared light from the accessory to a cellular telephone set mounted in said originating cellular phone apparatus so as to originate a call;

starting communication from the cellular telephone set mounted in said originating cellular telephone apparatus to the remote cellular telephone apparatus through base stations and activating display units to transmit and receive a sensed image signal and display a corresponding images so as to perform videophone communication;

monitoring a channel quality of the sub-communication to determine whether the channel quality has deteriorated to a predetermined level or less;

checking whether communication using a voice call can be performed between cellular telephone sets respectively mounted in said cellular telephone apparatuses;

originating a new call from the cellular telephone set mounted in the originating cellular telephone apparatus to the cellular telephone set mounted in the remote cellular telephone apparatus if the channel quality is determined to be deteriorated to a predetermined level or less, the new call being other than a call used for the sub-communication;

starting voice communication when the voice call is originated; and

terminating the sub-communication.

## **EVIDENCE APPENDIX**

None

## **RELATED PROCEEDINGS APPENDIX**

None